

FIG. 1

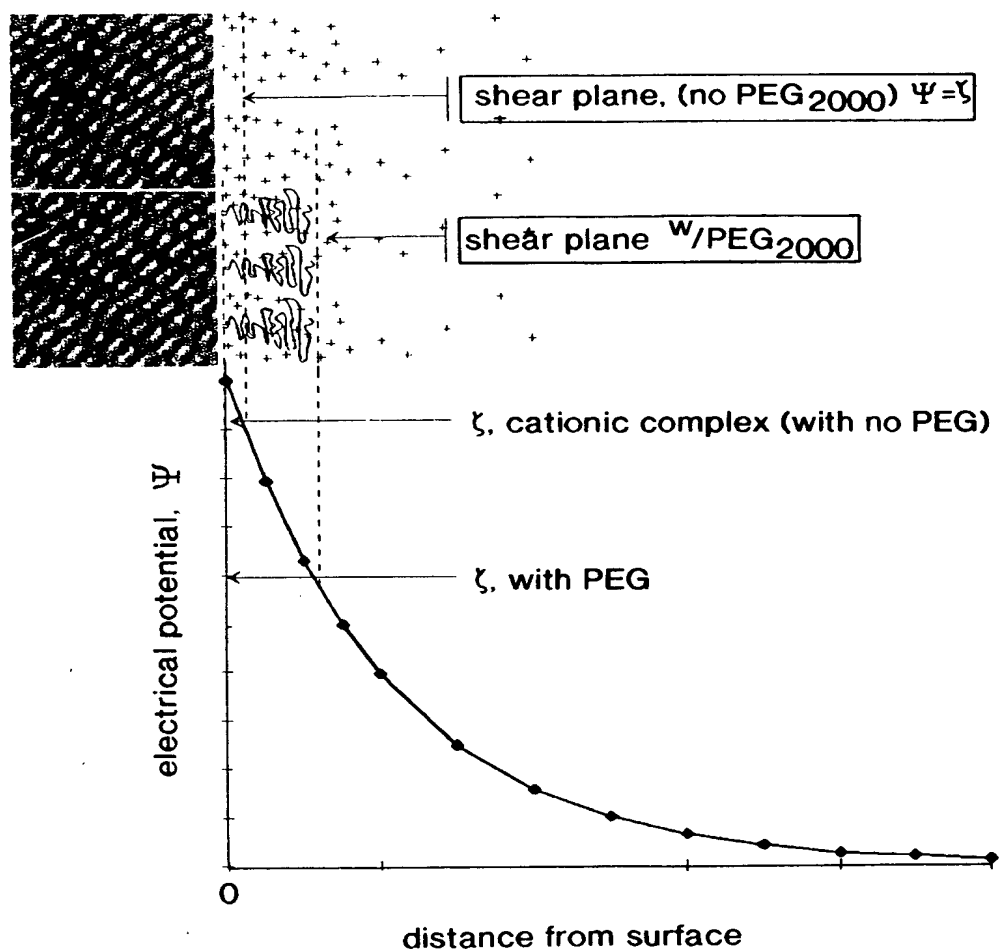
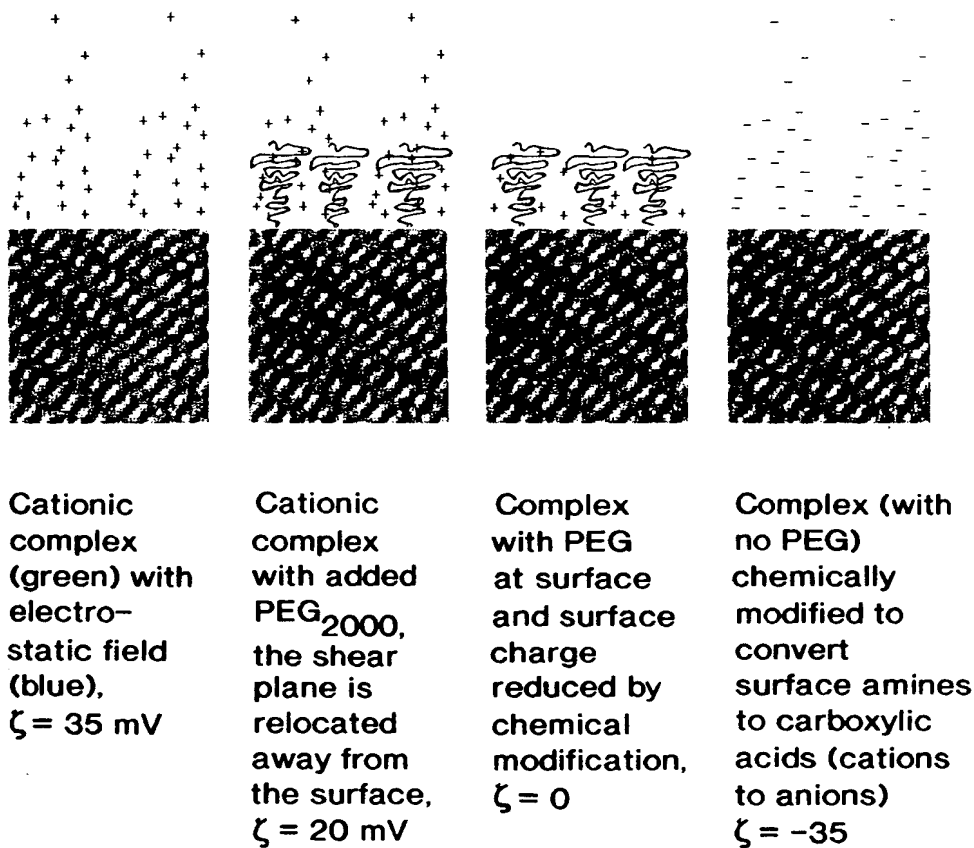


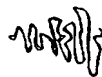
FIG. 2



lipid/DNA complex

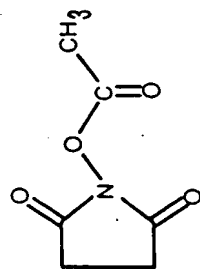


electrostatic potential

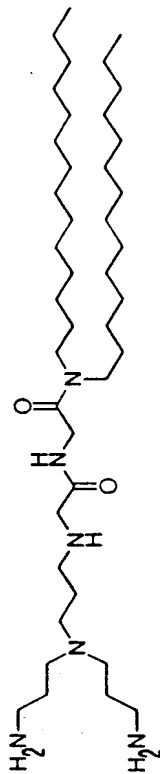


PEG

FIG. 3



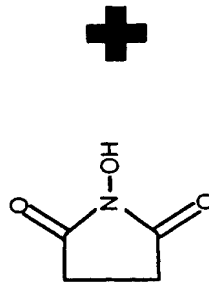
NHS-acetate



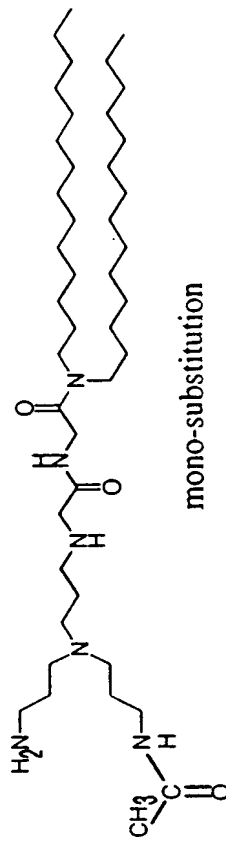
RPR209120



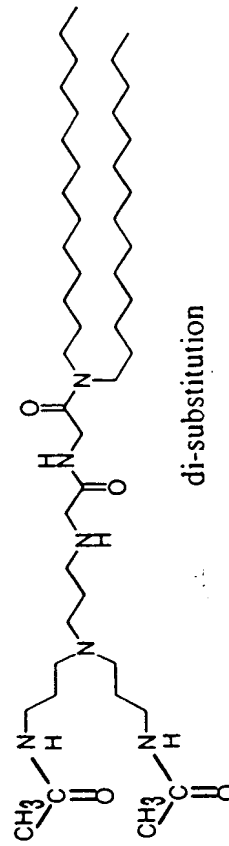
- 1) Room temperature, pH 7.5 for one hour
- 2) Dialyse against final buffer



NHS (leaving group)



mono-substitution



di-substitution

FIG. 4

**Modification of zeta potential in
RPR209120/DNA/PEG₂₀₀₀ complex
using NHS acetate**

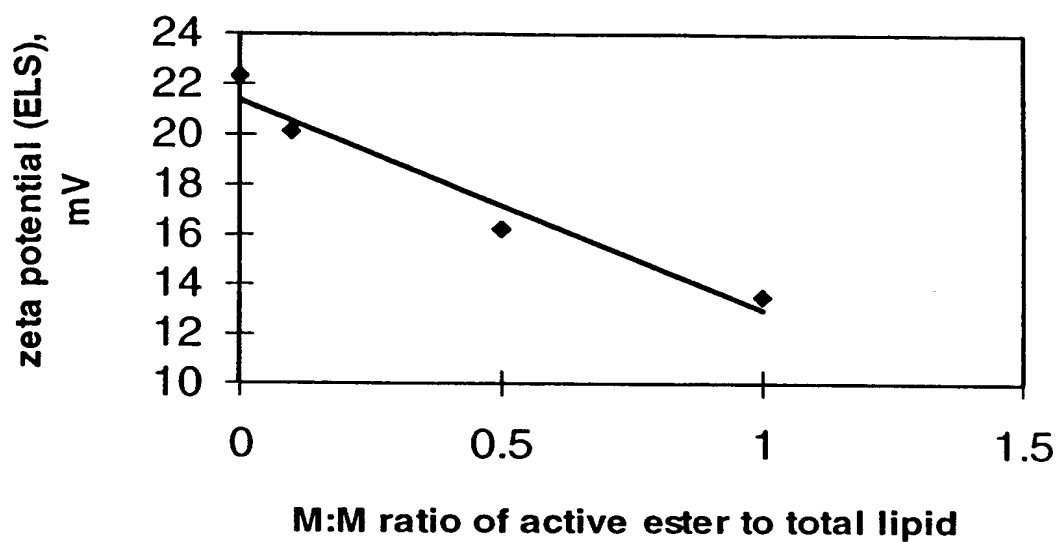


FIG. 5

**Reaction of NHS acetate with lipid/DNA
complexes**

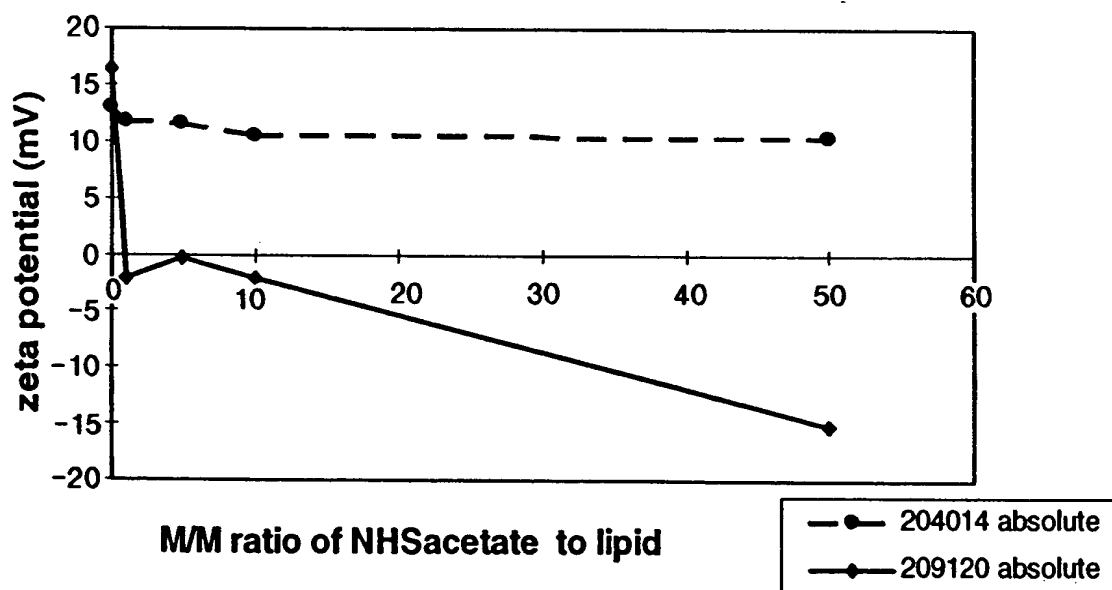
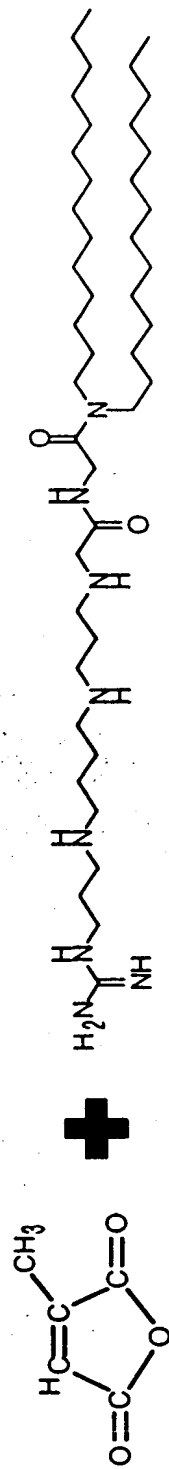


FIG. 6

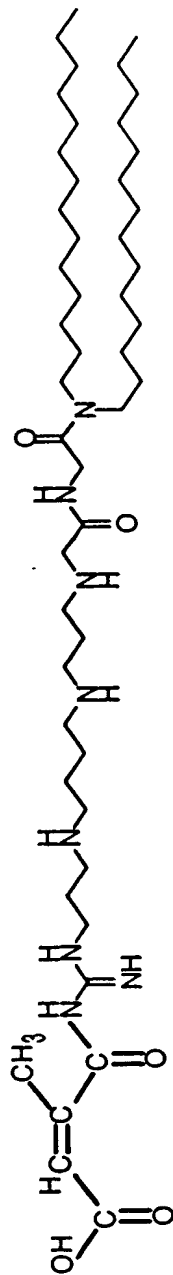


Citric acid, anhydride

RPR204014



RT, 1 hour, pH 9



H₂O
acid pH

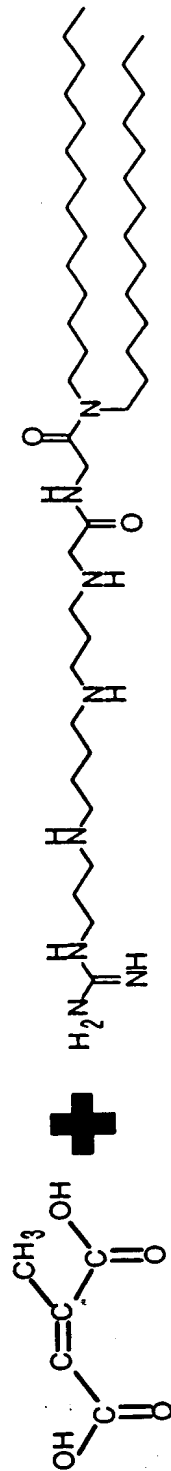


FIG. 7

209120/DNA/10% PEG Complex (indium labeled) NHSacetate Modified
Biodistribution in Mouse

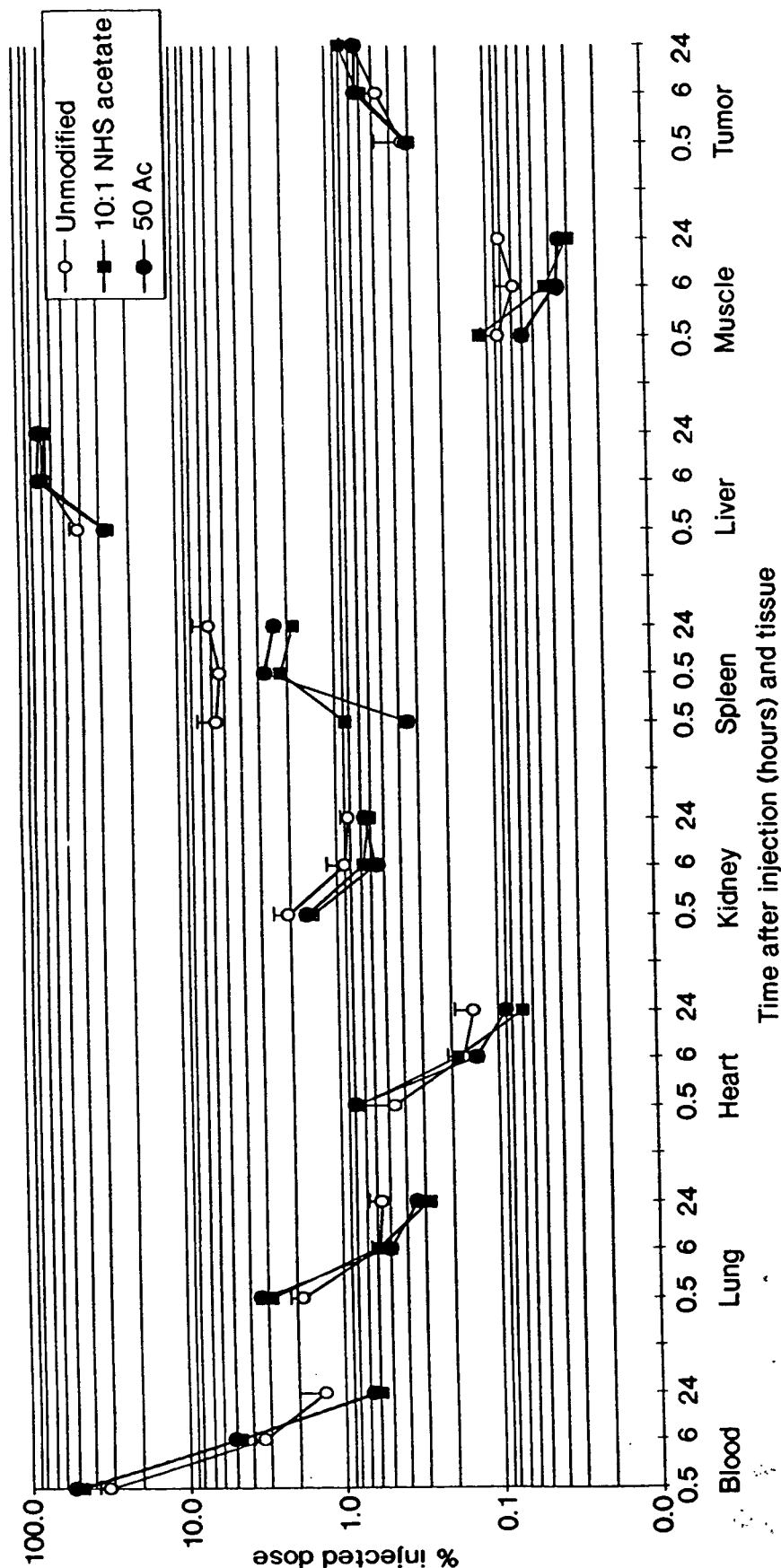


FIG. 8

Biodistribution of CCA conjugated particles

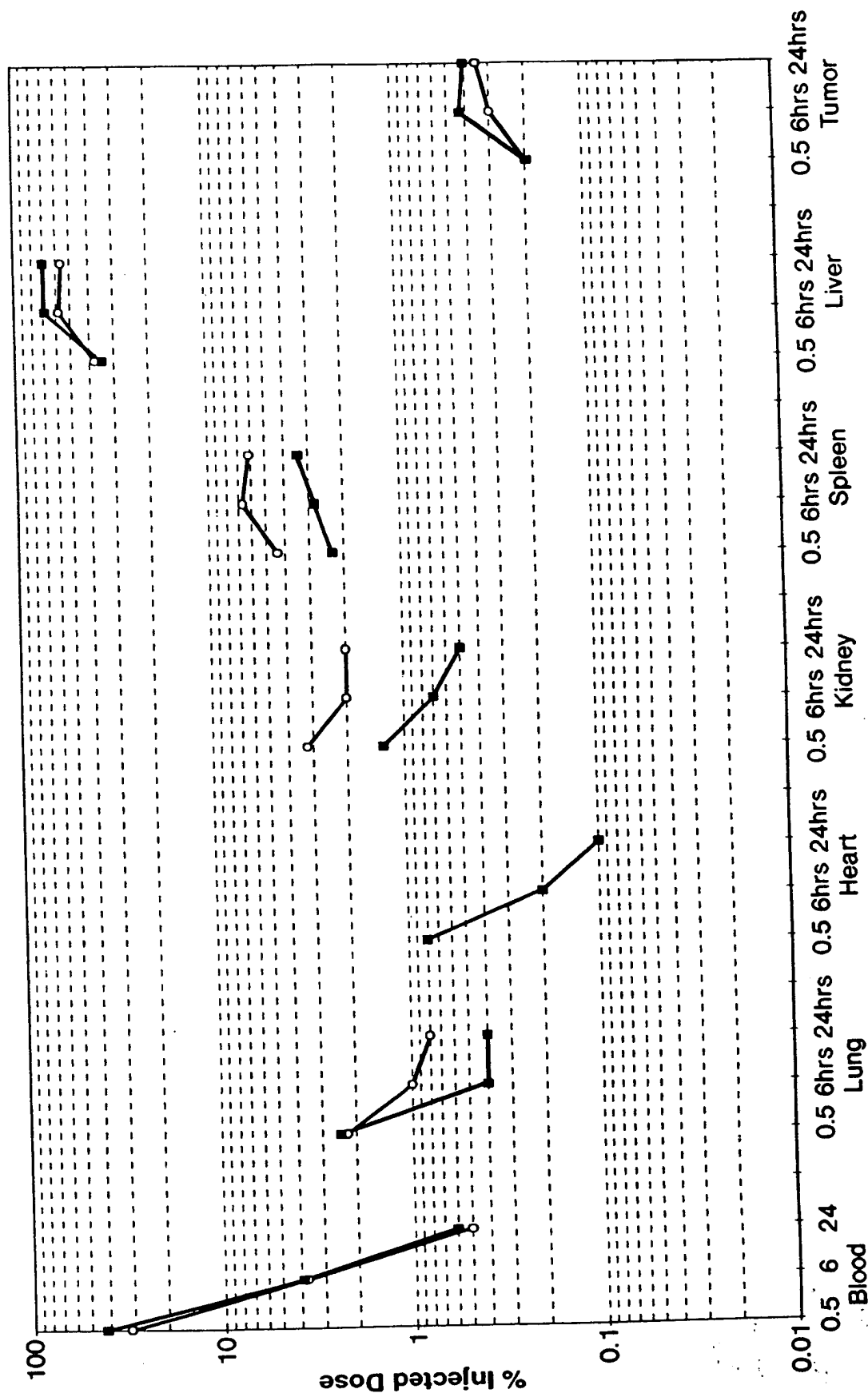
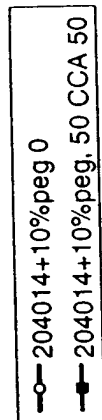


FIG. 9

RPR209120/DNA/PEG circulation in blood as a function of the degree of modification by NHSacetate

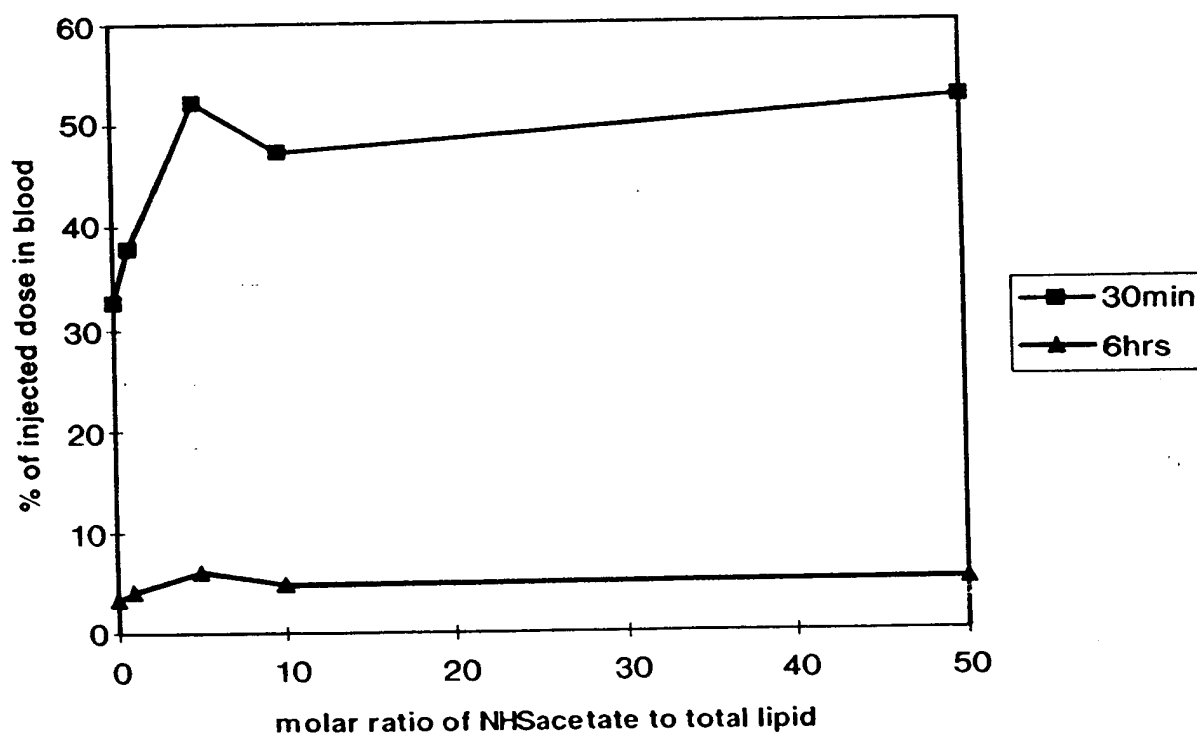


FIG. 10

NHSacetate modified RPR209120/DNA/PEG complex has
lower impact on spleen

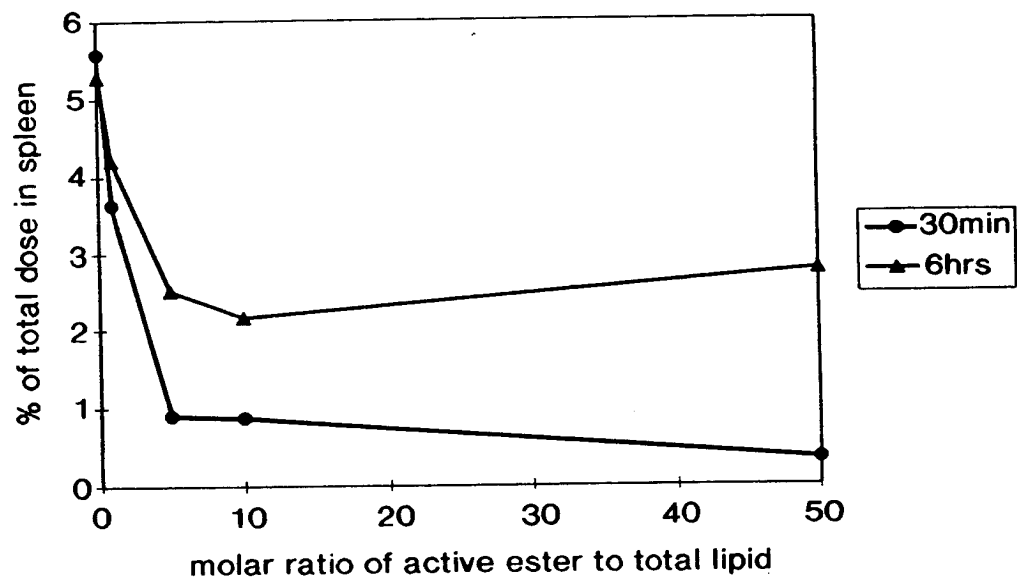


FIG. 11

Enhanced uptake in tumor of NHSacetate modified
RPR209120/DNA/PEG complex.

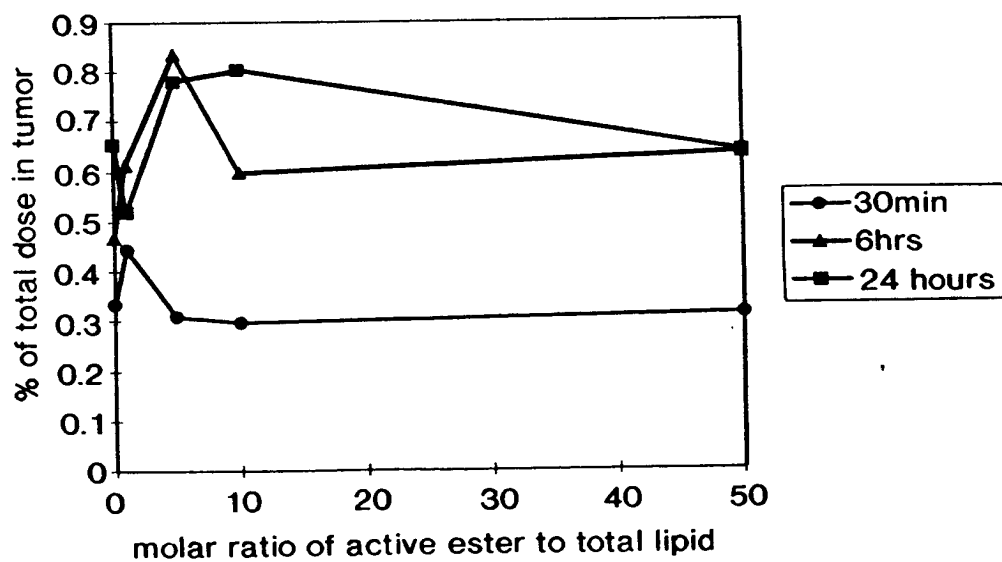


FIG. 12

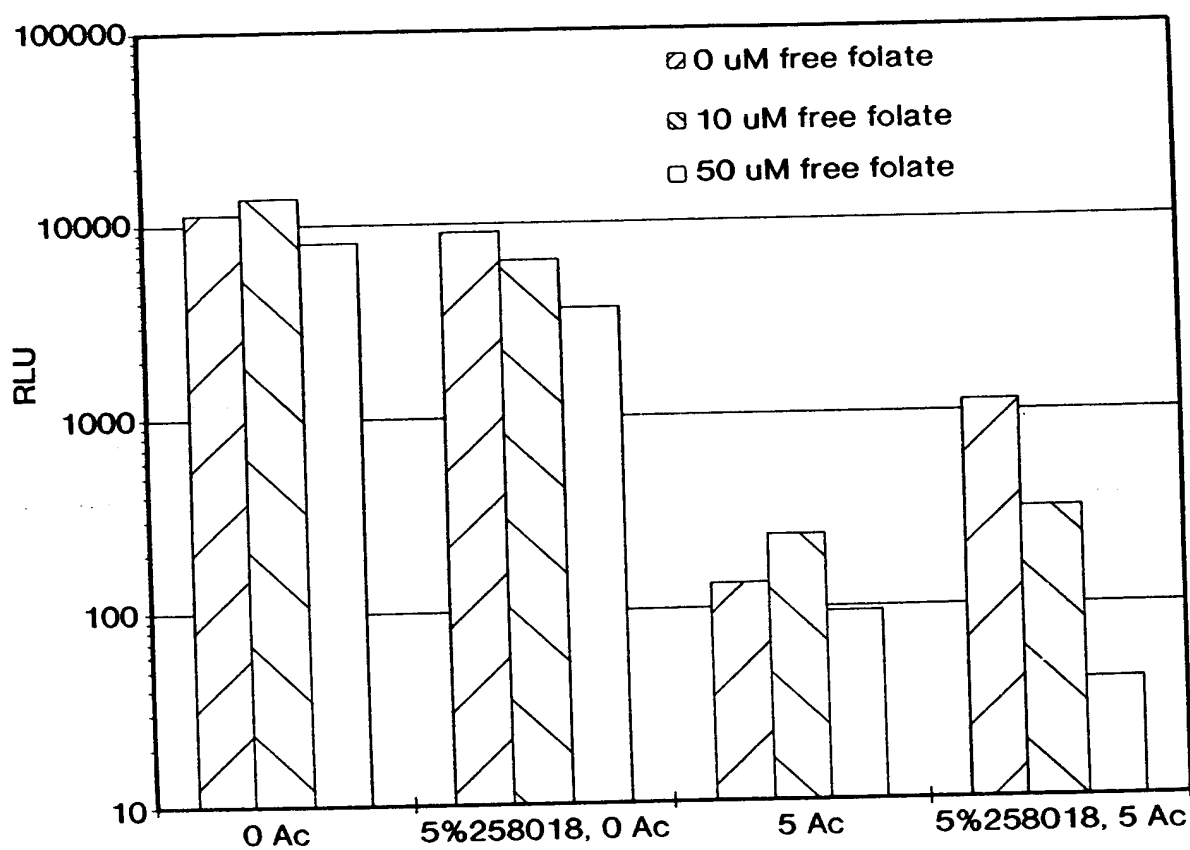


FIG. 13

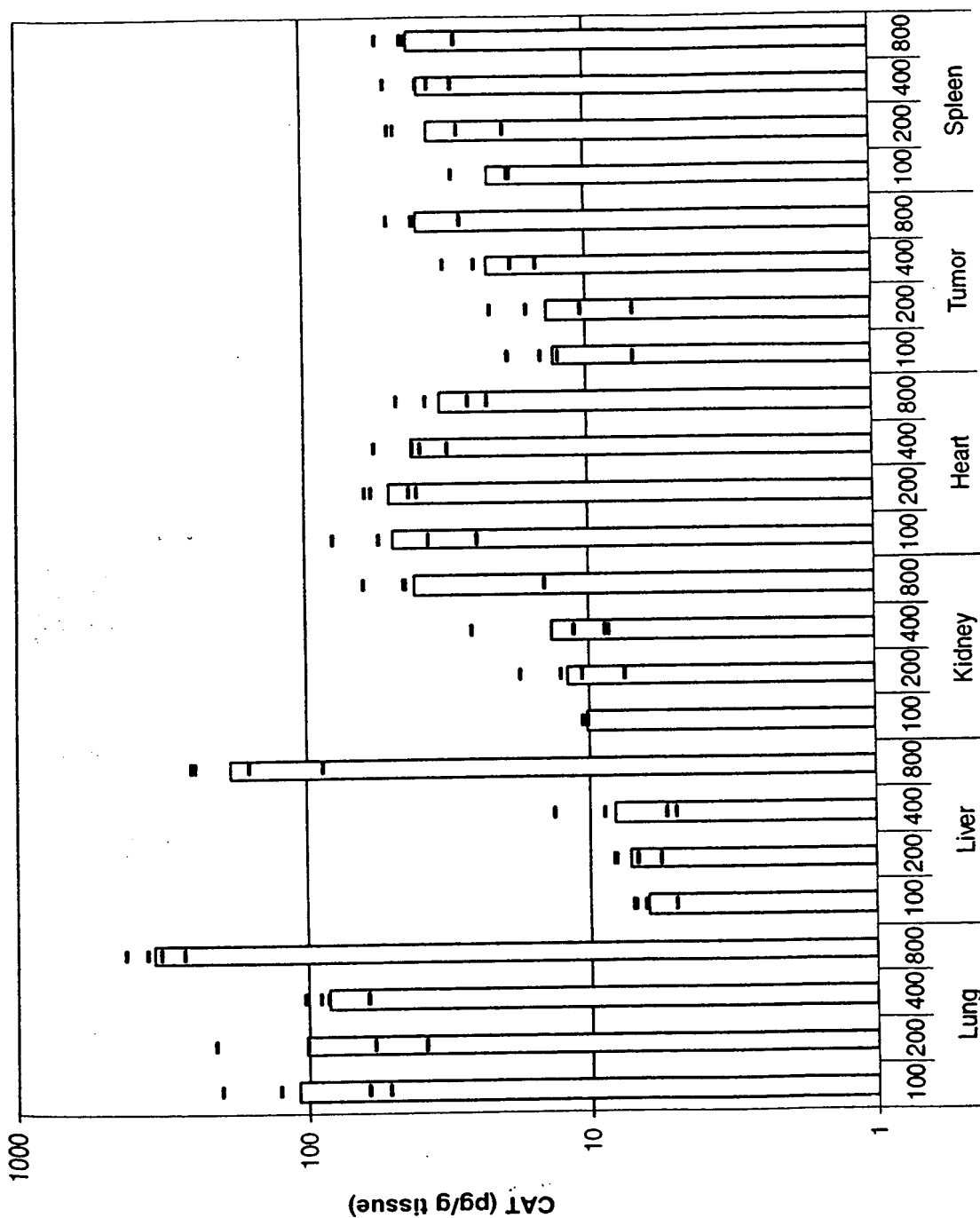


FIG. 14